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09/717,771	11/21/2000	Koji Hayashi	10449-028001	9013

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EXAMINER	
PSITOS, ARISTOTELIS M	
ART UNIT	**PAPER NUMBER**
2653	24

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/717,771	Applicant(s) HAYASHI, KOJI	
	Examiner Aristotelis M Psitos	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/39/04 & 2/9/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *all* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/25/04 & 5/6/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/29/04 has been entered.

Drawings

The examiner has approved the new drawing submitted on 8/21/03. Again, applicant's cooperation is greatly appreciated.

Information Disclosure Statement

The IDS of 3/25/04 and 5/6/04 have been considered as noted by the examiner.

In the IDS of 3/25/04, document AD and AE and the translation of document AC have not been considered for the following reasons: a) no copy of document AE was found in the accompanying submitted papers. Document AD was previously cited by the examiner (892 of paper #17) and hence is not considered again. No English translation of document AC (other than its US equivalence to patent document AA as listed on the same IDS) accompanied the papers.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-5,7-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, applicant has presented claims to an

interrupt control circuit that interrupts the data recording "if the laser beam is continuously generated at the relatively low power level"; however, there is NO disclosure as to what/how such is accomplished.

As interpreted by the examiner applicant's invention is drawn to interrupt ability for recording when two conditions exist:

a) buffer underrun condition

b) presence of sync signal.

With respect to claims 1-5,7-8,10

The above noted condition with respect to "continuously generated at the relatively low power level" lacks specificity/specific disclosure as to what/how such is accomplished. There is no support in the specification as originally filed to interpret claim 1 to read upon the recording data, as opposed to the sync pattern. Hence claim 1 is additional rejected as being drawn to an insufficient disclosure as originally filed (new matter problem).

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

With respect to claims1 and 9, this low power level is attributed to the "recording data", which is not considered to be the invention as disclosed, that is it isn't the "data" condition that is monitored, but rather the "sync pattern" which is CONTROL information and not data as is normally interpreted in this environment. Claim 2 attempts to correct this by including the sync pattern and hence the examiner strongly recommends inserting such limitations into claims 1 and 9 to overcome this rejection.

AS FAR AS THE CLAIMS RECITE P[SOTIVE LIMITATIONS, THE FOLLOWING REJECTIONS ARE MADE.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-5,7-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No. 6,487,616 in view of Kuroda et al and all alternatively with JP 08-147879.

The present claims differ (obvious) over claim 1 of the above noted patent because they recite both laser source and buffer underrun ability. The examiner interprets the interruption recited in the above noted claim as another (obvious) way in which to claim buffer under-run condition – see Kuroda et al claimed recitation with respect to buffer storage. The ability of claiming a laser source so as to perform the recording is considered an obvious claim limitation, i.e., a laser and its' drive circuitry as recited in claims 1, 7 and 10 would be an obvious modification so as to claim appropriate recording circuitry since such elements are required to complete a recording system/inherently present in any recording circuitry.

It would have been obvious to modify the base system of claim 1 of 6,487,616 and modify such to include phraseology with respect to buffer underrun, and to include laser and laser drive circuitry as required by claims 1, 7 and 10. Such phraseology and required elements are considered obvious to one of ordinary skill in the art so as to complete the recording apparatus.

Alternatively JP 08-147879 also discloses the ability of buffer underrun condition monitoring as well as interrupting the laser power for writing when such a condition exits.

It would have been obvious to modify the base system of claim 1 in 6,487,616 and modify such with the appropriate language to include buffer underrun (as opposed to interrupting) and the laser drive circuitry in order to control the interruption.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1,2,7,8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2842262 further considered with the acknowledged prior art with respect to the sync pattern.

With respect to the independent apparatus claims 1, 7 and 10; the JP 2842262 document as discussed in col. 1, lines 40-41 in US patent 6584053 discloses in this environment the ability of prevent a recording/interruption thereof during a buffer underrun condition. Hence the examiner concludes that such at the very least must inherently posses/disclose a laser drive circuit, and a buffer underrun determination circuit and an interrupt control circuit. However, there is no clear depiction that such occurs while the laser beam is generated during the appropriate "relatively low power level in accordance with the data". The examiner interprets this to read upon the acknowledged low level signals as discussed in applicant's disclosure.

It is well known in this environment to commence recording upon proper recognition/detection of the sync signal period and Official notice is taken thereof.

The "relatively low power level" being part of the sync pattern is acknowledged as being part of the cd format prior art.

It would have been obvious to modify the base system of JP 2842262 with well-known sync pattern detection circuitry to ensure proper signal recording.

With respect to dependent claim 2, again this is met by the acknowledged prior art cd sync pattern format.

The limitations of the method claim are met when the above prior art system(s) operate.

Applicant's cooperation is respectfully requested in providing a copy of such identified JP document to complete the search report.

Response to Arguments

Applicant's arguments, see paper #18, filed 2/9/04, with respect to the consecutive low power level have been fully considered but are not persuasive. The claimed limitations do not define over the reference. The claims recite "if the laser beam is continuously generated at the relatively low power level in accordance with the recording data level" (claim 1); "when the laser beam is continuously generated continuously generated at the relatively low power level in accordance with the sync pattern of a sector" (claim 7), " is continuously generated continuously generated at the relatively low power level in accordance with the sync pattern of a sector (claim 8) and similar language in claim 10.

As discussed by applicant in his analysis of the above noted JP document, such conditions do exist and hence buffer interruption is performed accordingly.

Claim Rejections - 35 USC § 103

5. Claims 1-5,7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-147879 further considered with either Takagi et al or EP 507571

JP 09-147879 discloses in this environment the ability to stop recording/interrupt laser power, upon an appropriate buffer condition.

There is no specific mentioning of an address memory for storing such positions, although resumption of recording is started at the next available location.

Either Takagi et al or the EP document disclose the ability of having a memory addressing ability so as to know at which location the system was interrupted, and subsequent resumption occurs at the proper location.

It would have been obvious to modify the base system of JP 08-147879 and modify such with the above teaching from either Takagi et al or the EP document to Shimizu et al, motivation is to restarting the system at the point of interruption.

Furthermore, with respect to the existence of the existence of the laser beam at, if, when, continuously generated at a low power level:

a) interpretation of such focuses upon the existence of such in the sync signal.

As disclosed by the above noted JP document 08-147879 as discussed by applicant such a sync pattern does exist.

Alternatively, Takagi et al performs his resynchronization predicated upon the detected synch pattern at the time of interruption.

Hence the examiner concludes that is would have been obvious to one of ordinary skill in the art to modify the above system of JP 08-147879-Takagiet al/EP 507571 with the additional teaching from either Takagi et al or JP 08-147879 and when such a pattern is sent to the laser generating device a laser beam is continuously generated at a low power level, and interruption predicated upon buffer underrun exists, the claimed limitations are met.

Applicant's claimed terminology in certain claims (for instance claim 3) notes possible conditions, "if the laser beam is ...." and buffer underrun, may become null ..." Such are not POSITIVE limitations but rather define possibilities. As such, the above combination of reference met the claimed limitations.

6. Claims 1-2,7-8,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyun further considered with JP 2842262 (alternatively identified as JP 08-1447879) and all further considered with Maeda.

Hyun discloses in this environment the ability of indicating a buffer underrun condition and appropriately rerecording the information upon the medium. There is no clear depiction of a laser drive circuit for appropriately interrupting the writing at the buffer underrun and if the laser beam is continuously generated at the low power level in accordance with the data.

JP 2842262 teaches in this environment the ability of interrupting/stopping the laser upon appropriate loss of information (buffer underrun condition).

It would have been obvious to modify the base system of Hyun with the above teaching from JP 2842262 so as to stop/interrupt the laser drive circuitry appropriately and not record information.

Maeda teaches in this environment the ability of also checking for loss of sync, interruption thereof and appropriately compensating the system.

It would have been obvious to modify the combined system (Hyun – JP 2842262) with the additional indication of an interruption of sync so as to permit the cessation of writing into the memory device of Hyun when both conditions exist. The loss of a synch signal which interrupts is a concept known from facsimile days in which no sending/writing of the information is performed if/when loss of such a signal is detected. Hence the examiner concludes that the appropriate combination of references is obvious to one of ordinary skill in the art.

7. Claims 3-5 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1-2,7,8 and 10 above, and further in view of Takagi et al, or alternatively EP 507571.

These claims require/recite the existence of an address memory for storing buffer underrun address locations. Such is further taught by either the Takagi et al reference or the EP document.

It would have been obvious to modify the base system of references as relied upon above in paragraph 7 so as to permit the system to restart at the position where the break occurred. Such permits the system to begin anew at the location of error and not subsequently thereto (another difference location).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 10- 63433/Kuroda et al As found in the Kuroda et al document – US equivalent of the JP 10-63433 system, the ability to provide for an interruption of recording predicated upon the detection that a buffer underrun condition may occur, as well as permitting re-starting at the appropriate locations is disclosed in these documents.

These documents can also be relied upon for teaching the ability of storing the location of an interruption and resumption of system operation at the interrupted memory/address.

Hard copies of the application files are now separated from this examining corps; hence the examiner can answer no questions that require a review of the file without sufficient lead-time.

Any inquiries concerning missing papers/references, etc. must be directed to Group 2600 Customer Services at (703) 306-0377.

Any inquiry concerning ***the merits of this*** communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

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